



# Global Cellular Tracking System

## High Performance GPS Tracking

## GSM Series

### DESCRIPTION

The RTS GSM Series is a high performance long range tracking system using global cellular radio technology to communicate the position of people vehicles, and other remote assets. Remote transmitter and base receiver units support quad band communication with frequencies of 850 / 900 / 1800 / 1900 MHz. The technology is most suitable for tracking units located where global cellular wireless service, specifically General Packet Radio Service (GPRS) and Global System for Mobile Communications (GSM) is available.

Remote tracking units, equipped with GPS receivers, report their position to a GSM base unit via GPRS or Short Message

Service (SMS), and, in turn communicate with a Command and Control System (CCS). The CCS integrates the tracking data with data from Google Earth and Google Maps to display real-time tracking unit location and status data via the vMonitor software.

The GSM series can simultaneously track an unlimited number of remote units, each transmitting ID and alarm data, GPS position and satellite count, heading, and speed.



Vehicle Tracking Unit



Advanced Real Time GPS Tracking

vMonitor

User: Gary View: Store #109  
 Get to Site, Region or Address: Store #109

**Trip History** Alerts

Trackers for Site: S109A

Tracker	Last Report	Status	GPS Status	Battery
S109A	Aug 09 14:38:55	Moving	No Fix	OK (84%)

Start Time	Stop Time	Trigger	Duration	Mgs/Fixes	Distance (km)
Aug 09 14:38:55	Aug 09 14:38:55	Movement	00:00:00 (A)	1/0	n/a
Aug 09 14:35:03	Aug 09 14:38:51	Movement	00:03:48	3/0	n/a
Aug 09 14:31:41	Aug 09 14:34:59	Movement	00:03:18	3/2	0.0
Aug 09 14:28:40	Aug 09 14:31:47	Movement GeoEnter	00:02:57	3/3	0.7
Aug 09 14:21:35	Aug 09 14:22:29	Movement	00:00:54	3/3	0.0
Aug 09 14:11:05	Aug 09 14:11:05	Movement	00:00:00	1/1	n/a
Aug 09 14:10:58	Aug 09 14:11:02	Movement	00:00:04	2/1	n/a

vMonitor--User Interface for Real Time Tracking and Configuration

## SPECIFICATIONS

### GENERAL RADIO SPECIFICATIONS

<b>Frequency</b>	850/900/1800/1900 MHz Compliant to GSM phase 2/2+
<b>Output Power</b>	Class 4 (2W @ 850/900 MHz) Class 4 (1W @ 1800/1900 MHz)
<b>Transmission Media</b>	Global System for Mobile Communications (GSM)
<b>Reporting</b>	General Packet Radio Service (GPRS) Short Messaging Service (SMS)

### REMOTE FIELD TRACKING UNITS

**GPS Data** Unit ID, Latitude, Longitude, Heading, Speed, Active Satellite Count, Unit Status

#### GPS Receiver

**MTK All-in-One GPS receiver**

**Circular error probability** 3 meters

**TTFF** Code Start: 35s Hot Start: < 1s

**Standard update rate** 20 second (adjustable)

### Vehicle Tracking Unit

**Input power**  
Standalone unit 9 - 32 VDC

**Current draw**  
**Operation** 42 - 81 mA  
**Standby** 8.8 - 14 mA

**Dimensions** 105 mm x 78 mm x 24 mm

**Operating temperature** -30 ° C - +80 ° C

**Interfaces**  
4 Digital Inputs  
4 Digital Outputs  
1 RS-232

### FEATURES:

- Geo-Fence Exit & Entry Alerts
- Text & Email Notification
- Trip History View
- Live View
- Panic Alert
- Data Download

The screenshot displays the vMonitor software interface. On the left, there is a 'Dashboard for Tracker GSM001' with the following data:

Device Status	OK
Last Message	May 25 10:00:24
Battery Status	OK (70%)
Motion Status	stop
GPS Update Rate (sec)	0
Last GPS Report	May 25 08:18:02
GPS Status	OK (hdop=1)
Speed	0
Heading	SW
Lat,Long	39.096181,-104.866071

Below the dashboard is a 'Geo Fences for GSM001' table:

Geo Fence	State	Time
Man	Outside	May 25 08:13:34
Bratgate	Outside	May 24 13:06:20
Starbucks/Mon	Inside	May 25 08:16:26

The central map shows a red line representing a trip path for device GSM001. On the right, a 'Trip History for Device GSM001' table is displayed:

Start Time	Stop Time	Duration	Distance (km)
May 22 17:10:42	May 22 17:19:56	00:09:14	5.4
May 22 18:43:49	May 22 14:05:34	00:21:45	19.2
May 22 11:37:18	May 22 11:52:35	00:14:47	15.9
May 22 11:06:28	May 22 11:15:36	00:09:08	5.7
May 22 11:02:49	May 22 11:06:12	00:03:23	0.5
May 22 10:53:12	May 22 11:02:34	00:09:22	5.1
May 22 06:52:57	May 22 07:00:19	00:07:42	5.5

## ORDERING INFORMATION

Product	Part #	Description	Notes
Remote Field Tracking Units	GSM-PTU	Personnel Tracking Unit	
vMonitor Software	RTS-VMON	Geo-spatial graphing and display software	